

Updated January 3, 2023

# TAYLOR M. OKONEK

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Department of Biostatistics, University of Washington,  
3980 15th Avenue NE, Box 351617, Seattle, WA 98195

## EDUCATION

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### University of Washington, Seattle, WA

*September 2018 - Present*

Ph.D. Candidate, Biostatistics

Advisor: Jon Wakefield, Ph.D.

Dissertation: Statistical Methods for Official Statistics and Mortality Estimation

### Saint Olaf College, Northfield, MN

*September 2014 - May 2018*

B.A., Mathematics and Religion

Concentration in Statistics

*Summa cum laude*

## RESEARCH AND CONSULTING EXPERIENCE

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### Research Assistant

University of Washington, Department of Biostatistics

Supervisor: Jon Wakefield, Ph.D.

*June 2019 - Present*

University of Washington, Department of Environmental and Occupational Health Sciences

Supervisors: Lianne Sheppard, Ph.D. and Joel Kaufman, Ph.D.

*September 2018 - June 2019*

### Saint Olaf College Center for Interdisciplinary Research

Statistical Consultant

Supervisors: Louis Epstein, Ph.D. and Sharon Lane-Getaz, Ph.D.

*September 2016 - May 2018*

Matthew Wright, Ph.D. and Matthew Richey, Ph.D.

### Saint Olaf College Collaborative Undergraduate Research and Inquiry Program

Student Summer Researcher

Supervisors: Sharon Lane-Getaz, Ph.D.

*May 2016 - August 2016*

## TEACHING EXPERIENCE

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### Instructor

University of Washington, Department of Biostatistics

- BIOST 311: Regression Methods in the Health Sciences

*March 2022 - June 2022*

*Co-taught with Charlie Wolock*

### Teaching Assistant

University of Washington, Department of Biostatistics

- BIOST 310: Biostatistics for the Health Sciences

*September 2020 - December 2020*

- Summer Institute in Statistics and Modeling in Infectious Diseases

*July 2021, July 2022*

*Spatial Statistics in Epidemiology and Public Health*

- Course preparation: Maintenance of R package `rigr`

*June 2021 - September 2021*

- BIOST 555: Statistical Methods for Spatial Epidemiology

*January 2022 - March 2022*

Saint Olaf College, Department of Mathematics and Statistics

*February 2015 - May 2018*

- STAT 212: Statistics for the Sciences
- STAT 322: Statistical Theory
- MATH 244: Real Analysis
- MATH 262: Probability Theory

### **Undergraduate Student Mentor**

University of Washington, Department of Statistics

*January 2021 - June 2021*

- Directed Reading Program Mentor: Topics in Biostatistics
- Directed Reading Program Mentor: Disease Mapping

Fred Hutchinson Cancer Research Center

*June 2021 - September 2021*

- Summer Internship Mentor

## **INDUSTRY EXPERIENCE**

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### **Data Science Intern**

*May 2017 - August 2017*

WindLogics, St. Paul, MN

## **AWARDS AND HONORS**

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### **University of Washington**

ARCS Foundation Fellow

Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health Training Grant

### **Saint Olaf College**

Phi Beta Kappa Honors Society

Blue Key Honor Society

Pi Mu Epsilon Honor Society

Theta Alpha Kappa Honor Society

Bellows Scholarship

President's Scholarship

## **PROFESSIONAL SERVICE**

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### **Manuscript Reviewer**

Journal of Official Statistics

Journal of Survey Statistics and Methodology

## **UNIVERSITY SERVICE**

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### **University of Washington, Department of Biostatistics**

Member - Biostatistics Equity, Diversity, and Inclusion Committee *September 2018 - September 2021*

Member - Statistics Education Reading Group *September 2019 - Present*

Member - Biostatistics Activities and Events Squad *September 2019 - September 2022*

Member - Admissions Committee *September 2021 - April 2022*

Member - Teaching Faculty Search Committee *September 2021 - March 2022*

### **Saint Olaf College**

Member - TRIO McNair Scholars Program

*January 2016 - May 2018*

## PUBLICATIONS

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### PUBLISHED

1. Chen, Y.T., ..., **Okonek, T.M.**, ..., Willis, A.D. (2022). rigr: Regression, Inference, and General Data Analysis Tools in R. *The Journal of Open Source Software*, 80, 7.
2. Eaton, J., ..., **Okonek, T.M.**, ..., Shiraishi, R.W. (2021). Naomi: A New Modelling Tool for Estimating HIV Epidemic Indicators at the District Level in Sub-Saharan Africa. *Journal of the International AIDS Society*, 24.
3. Wakefield, J., **Okonek, T.M.**, Pedersen, J. (2020). Small Area Estimation for Disease Prevalence Mapping. *International Statistical Review*, 88, 2.
4. Han, S.M., **Okonek, T.M.**, Yadav, N., Zheng, X. (2020). Distributions of Matching Distances in Topological Data Analysis. *SIAM Undergraduate Research Online*, 13.
5. Epstein, L.K., **Okonek, T.M.**, Perkins, A.E. (2019). Mind the Gap: Inclusive Pedagogies for Diverse Classrooms. *Journal of Music History Pedagogy*, 9, 2.

### SUBMITTED

1. **Okonek, T.M.**, Wakefield, J. (2022). A Computationally Efficient Approach to Fully Bayesian Benchmarking.

## SOFTWARE

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<code>pssst</code>	Parametric Survey-weighted Survival models for Synthetic children across Time
<code>rigr</code>	Regression, inference, and general data analysis tools for R
<code>stbench</code>	Fully Bayesian Benchmarking for spatio-temporal models
<code>SUMMER</code>	SAE Unit/area Models and Methods for Estimation in R

## RESEARCH PRESENTATIONS

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1. "A Computationally Efficient Approach to Fully Bayesian Benchmarking." WNAR, Virtual. June, 2022. { *Contributed Presentation* }
2. "A Computationally Efficient Approach to Fully Bayesian Benchmarking." Biostatistics Student Seminar Series, UW Department of Biostatistics, Seattle, WA. November, 2021. { *Contributed Presentation* }
3. "Assessing National PM10 Predictions: From 1990 to 2016." BEBTEH Student Research Day, UW, Seattle, WA. April, 2019. { *Poster Session* }
4. "Distributions of Matching Distances in Topological Data Analysis." Underrepresented Students in Topology and Algebra Research Symposium, Portland, OR. April, 2018. { *Poster Session* }
5. "The Music History Game: Assessing Learning through Play." National Conferences on Undergraduate Research, Memphis, TN. April, 2017. { *Poster Session* }
6. "Teacher Professional Learning Communities and Student Achievement." Saint Olaf College Collaborative Undergraduate Research and Inquiry Program, Northfield, MN. August, 2016. { *Poster Session* }

## PROFESSIONAL AFFILIATIONS

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American Statistical Association

## TECHNICAL SKILLS

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**Programming Languages and Statistical Packages**

R, C++, Python, Mathematica,  
Shiny, Tidyverse

**Other Applications**

L<sup>A</sup>T<sub>E</sub>X, Linux/Unix, Git